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SPTATH001

Attitudes, knowledge and beliefs around homosexuality: Exploring the views of 5th year medical students

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Declaration

I, Athenkosi Sopitshi hereby declare that the work on which this dissertation/thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university.

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PART A: PROTOCOL

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Terms and definitions

LGBTI: Umbrella term used to describe or represent sexual minorities and people in same-sex relationships, the acronym comprises of lesbian, gay, bisexual, transgender and intersex people (Lane, Mogale, Struthers, Mcintyre, & Kegeles, 2008)

Homophobia: Is defined as the discrimination and dislike of homosexual individuals, homophobia can be in the form of "physical assault inclusive of rape and murder and less lethal practices such as verbal harassment" (Polders, Nel, Kruger, & Wells, 2008).

Patriarchy: A system through which masculinity and maleness are placed above femininity in such a way that societal rules and systems prioritize men with hegemonic masculinities (Bennett & Reddy, 2009).

Transgender: Individuals whose gender identity is different from the gender they are assigned at birth. Transgendered people do not conform to hegemonic gender roles and sometimes desire to change the sex they were born with (Stevens, 2012).

Sex: Biological categories that distinguish males and females based on reproductive organs and hormonal makeup (Mayer et al., 2008).

Gender: Socially constructed categories that define roles and behaviours of men and women. These are also linked to biological sex, for example someone born with male genitalia is prescribed a set of behaviours that are distinct from those of someone born with female genitalia. These are shaped by culture, religion and socialization (Nel, 2005).

Heterosexism: Is the attitude which views heterosexuality as the only acceptable, normal pattern for human relationships and tends to view all other sexual relationships as either subordinate to, or perversions of, heterosexual relationships (Sandfort, Baumann, Matebeni, Reddy, & Southey-Swartz, 2013).

MSM: Acronym referring to men who have sex with other men. MSM may not self-identify as gay or bisexual (Lane et al., 2008).

WSW: Acronym used in the literature to refer to women who have sex with other women (Pakade, 2013).

Homosexual: term used to describe a person who is sexually, emotionally, or physically attracted to a person of the same-sex (Pakade, 2013).

1. Introduction

In South Africa and in many parts of the world today identifying as gay, lesbian, bisexual, transgendered or intersexed (LGBTI) means one is vulnerable to violence in various forms (Müller, 2013). This can be enacted through physical violence as we have seen in violent attacks of black lesbian women in South African townships (Martin, Kelly, Turquet, & Ross, 2009; Muholi, 2004) or the structural violence that comes from laws and norms that seek to limit or condemn same-sex desires and LGBTI individuals such as forbidding same-sex marriage and preventing same-sex couples from adopting children(Mayer et al., 2008). These forms of policing of same-sex desires have been attributed to poor outcomes among people identifying as homosexual; poor health outcomes are highlighted across a spectrum of research concerning sexual and gender minorities (Sequeira, Chakraborti, & Panunti, 2012).

Access to healthcare, utilization of care, training of medical and mental health providers, and the appropriate preparation of clinical offices and waiting areas are key elements in understanding some of the poor health outcomes observed in LGBTI communities (Mimiaga & Bradford, 2008). The growing momentum garnered by gay rights activism and progressive laws has meant that LGBTI people are can claim their full citizenship rights—eligible for benefits provided by state such as public healthcare, thus the conscientization of health professionals to the needs of LGBTI people goes beyond an issue of professional competency - it is a human rights issue (Müller & Crawford-Browne, 2013). Estimates in South Africa indicate that LGBTI people make up 5-10% of the total population (Polders & Wells, 2005). This means that medical doctors are likely to interact with LGBTI patients in their medical careers (Müller, 2013).

Studies exploring LGBTI health have shown that negative attitudes and discrimination have been dominant features of healthcare workers when treating LGBTI patients (Kelley et al., 2008; Makadon, 2006; Parker & Bhugra, 2000). Thus, studies in this area have argued for training that engages medical professionals on their beliefs and attitudes when treating homosexual patients (Bennett & Reddy, 2009; Makadon, 2006; Müller & Crawford-Browne, 2013) . Interrogating the experiences and integration of sexuality, including sexual orientation and gender identity in the training of health professionals has been scarce or in some cases non-existent in pedagogies applied in health sciences in South African universities, to some extent it remains a major blind spot in medical education in the country (Bennett & Reddy, 2009; Müller & Crawford-Browne, 2013).

Literature suggests that homophobic beliefs diminish the quality of services provided by health professionals (Chapman, Watkins, Zappia, Nicol, & Shields, 2011; Parker & Bhugra, 2000). In parallel to this, homophobic attitudes expressed by health professionals towards LGBTI patients diminish their ability to seek healthcare or adhere to treatment (Stott, 2013). Stigmatization greatly affects the mental health of LGBTI patients. Lane et al., (2008) argue that, it contributes toward the greater narrative of violence towards sexual and gender minorities in South Africa. In their, study Lane et al., (2008) present narratives that show

the link between homophobic attitudes and poor health outcomes, one participant in the study shares his experience:

"…*The nurse will ask questions like 'What was in here?'—she means in the anus. And that makes us afraid of going to the clinic to get treatment on time and that's why many gay men get sick* (Lane et al., 2008, p. 431)''

Studies supporting immediate interventions in the curriculum taught to medical doctors and other cadres of healthcare professionals to include LGBTI health training have been focused on western countries. South Africa's contextual realities may not be suited for a copy and paste approach of these interventions. However, through grounded approaches, research is slowly unpacking the experiences and meanings of homosexuality in South Africa (Sandfort et al., 2013). As novel as this research is, it has shown that medical students exposed to LGBTI health in their curriculum have increased competency, understanding and awareness (Mcgarry et al., 2009; Sequeira et al., 2012). These findings are the impetus for this study and highlight the need for locally based research within South African institutions of higher learning. The main research question in this study is exploring what attitudes and beliefs 5th year medical students at the University of Cape Town, Western Cape hold regarding LGBTI people and homosexuality. The sub-themes this study will address are the following:

1. What do 5th-year students understand by LGBTI categories?

2. What are the students' experiences with LGBTI people and the emotions these interactions elicit?

3. What do students know about the specific health needs of LGBTI people and do they feel competent to address these needs?

2. Literature reviewed

Harcourt states that literature on LGBTI health is "in its infancy", a systematic review study conducted by Boehmer (2002 as cited in Harcourt, 2006) found that literature focusing on sexual and gender minority health made up 0.1% of the indexed articles on Medline (Hacourt, 2006). Broadly, what is known about LGBTI health focuses on gay men, HIV and sexually transmitted diseases (Hacourt, 2006). Nevertheless, the health of LGBTI people over the years has garnered interest in research and policy development recognising the growing disproportionate risk of certain diseases for the LGBTI community (Meyer, Dietrich, & Schwartz, 2008).

Even though the literature often groups individuals under the LGBTI banner as a homogenous group, there are marked differences in incidence and risks of diseases that are often missing in research and health policies (Muller, 2014). A significant criticism in the literature advocating for the inclusion of LGBTI health within the medical field is that it often clusters individuals without addressing the differences that exist within the LGBTI banner. Also, there is a paucity of studies that address LGBTI health in South Africa, particularly

focusing on the training of health workers and critically evaluating the efficacy of policies that exist in creating inclusive healthcare for LGBTI people.

Although the latter will not be addressed in this paper, I will draw on evidence from western studies that have focused on medical students as those insights are useful for framing this study. The illegal status of homosexuality in Africa contexts makes it difficult to compare contexts similar to South Africa and present a thorough reflection on LGBTI health (Polders & Wells, 2005). Thus, this section of the paper will present emerging themes in the literature of concern to this study and highlight the significance of this inquiry in South Africa. This literature review will address the following themes

1. Health disparities for sexual and gender minorities
2. Pedagogies applied in institutions: Training of medical doctors
3. Attitudes and beliefs of medical students

2.1 Health Disparities

Current research evidence shows that disparities exist in health outcomes for LGBTI people, the Hepatitis B vaccine trials conducted by the Howard Brown Clinic in the 1970s were among the first examples of clinical studies to recognise the disproportional prevalence of sexually transmitted diseases among MSM (Meyer et al., 2008). This is not to say there are health problems exclusively affecting sexual and gender minorities however, the intersection of their sexuality alongside discriminatory social environments, the threat of physical violence, and specific sexual practices means that they are disproportionally affected by some diseases compared to heterosexual people. Thus, sexuality is a strong determinant of health (Logie, 2012).

Mental illness among sexual and gender minorities has also been a noted concern in the literature because of its association with social exclusion and homophobia. Ard and Makadon (2012) draw attention to mental health outcomes in the United States noting that disorders such as depression and anxiety disorders are particularly common among LGBTI people. It is thought that the experience of homophobia and discrimination that is both social and structural may exacerbate the mental distress among sexual and gender minorities (Ard & Makadon, 2012; Lane et al., 2008). Homophobia according to Meyer (as cited in Logie 2012: 1244) “has been associated with increased relationship problems, depression and reduced knowledge on HIV”(Logie, 2012).

Likewise, heavy alcohol use, substance abuse and obesity have also been cited as common health issues among LGBTI people, and these lifestyle diseases contribute to an increased risk of cardiovascular diseases and morbidity (Ard & Makadon, 2012; Logie, 2012). Similarly, Polders et al., (2008) state that mental health disorders such as depression and suicide ideation are common in LGBTI people in South Africa due to living in stigmatizing and heterosexist environments. However, this experience is different

among social and racial groupings. Black LGBTI people often experience more violence rooted in homophobia than their white counterparts (Polders et al., 2008).

Human Immunodeficiency Virus (HIV) is a growing concern for sexual minority groups alongside a range of sexually transmitted diseases such as gonorrhoea and syphilis (Mayer et al., 2008). A study conducted by OUT LGBTI Wellbeing, in Gauteng reported that 8% of women in same-sex relationships participating in the study were HIV positive (Matebeni, Reddy, Sandfort, & Southey-Swartz, 2013; Polders & Wells, 2005). According to Ard & Makadon (2012), men who have sex with men (MSM) made up one-third of the HIV disease burden in the United States in 2009, with increasing incidence rates among black MSM(Ard & Makadon, 2012). Similarly, in sub-Saharan countries the prevalence of HIV among MSM exceeds the prevalence in the general populations (Ard & Makadon, 2012, p.3). A study assessing the prevalence of HIV among 285 MSM in two cities in South Africa namely, Johannesburg (n=204) and Durban (n=81) found a 49.5% and 27.5% prevalence of HIV in the sample. HIV prevalence in the general population is estimated to be 18.9 % (UNAIDS, 2012) and given the small sample in the study; the prevalence was remarkably high. The study also showed there was a higher HIV prevalence among MSM who self-identified as gay than those whose sexual orientation was bisexual or straight.

Meyer et al., (2008) argue that knowledge about LGBTI people has centered around medicalizing their sexuality rather than understanding it or normalizing it. Therefore, health outcomes reported for LGBTI populations have predominantly focused on sexually transmitted diseases, violence and marginalization. This gap can be attributed to the global focus on HIV and the associated risks associated with certain sexual practices common among LGBTI people such as anal sex. Accordingly, health research and interventions that focus on LGBTI communities have followed the same trajectory.

The epidemiology of diseases affecting LGBTI communities has not been adequately understood except HIV (Jowett & Peel, 2009), the correlation drawn between sexual practices and sexual orientation often leads to poor understanding of incidence and prevalence (Mayer et al., 2008). Moreover, Dolan and Davies (as cited in Matebeni et.al., 2013, p.2) maintain that “women are not all the same epidemiologically”. What this means for WSW or lesbian women and the broader LGBTI community is that the way in which patients come to have a disease is not the same and health professionals need to be aware of this, for example, a man self-identifying as gay may not exclusively have sexual intercourse with men.

Women who sleep with women (WSW) are particularly affected by this oversight in South Africa whereby their risk of HIV has been underestimated (Matebeni et al., 2013). Studies such as Rothman et al., (2011) and Matebeni et al., (2013) conducted in the United States and South Africa respectively, have illustrated that the intersectionality between sexuality and violence renders lesbian and bisexual women at increased risk for contracting HIV. Similarly, Tracy, Lydecker and Ireland (2010) argue that the prevalence of Human Papilloma Virus (HPV) among WSW is not known even though there are studies that have found the prevalence to be between 13-30% in some contexts (*also see Marrazo et al., 1998*). This goes against the understating that WSW are at lowered risk of contracting HIV compared to heterosexual women. Makadon

(2006) argues that although guidelines recommend that doctors conduct pap smears on lesbian women, physicians fail to do this because they underestimate their risk. There is a gap in the literature where WSW are concerned, especially in South Africa and the risk in this is that their health needs can be overlooked.

WSW/ lesbian women are also at increased for sexual violence, out of the 364 South African WSW in the Sandfort et al., (2013) study, 27.7% reported forced sex; 16.5% for men only, 6.6% for women only and 4.7% for both men and women. This places lesbian/WSW at an increased risk for HIV *(see Human Rights Watch Report 2011, see Sandfort 2013 and 2015*). In addressing LGBTI health, Ard & Makadon (2012) state that health policies need to account for the nuances between individuals just as the research has been saturated for other social determinants of health. Finally, Lane et al., (2008); Matebeni et al., (2013) & Sandfort et al., (2013) all make the collective argument that sexuality within healthcare services is poorly understood and thus poorly addressed by healthcare workers. The quality of healthcare available to LGBTI people is compromised by a lack of healthcare worker knowledge and relevant policies.

2.2 Access to healthcare services

Health systems research has over the years highlighted social factors as key barriers in accessing healthcare (de Savigny & Adam, 2009). Although healthcare may be freely provided as it is in South Africa (public sector), it may not be accessible or appropriate for the people who use it. Studies looking at the experiences of healthcare among sexual and gender minorities have supported this, largely pointing to homophobia and transphobia as a key barrier to accessing healthcare for LGBTI people (Meyer et al., 2008; Stevens, 2012). Matebeni (2003) argues that in South Africa heterosexism, patriarchy and homophobia have collectively sought to privilege heterosexuality and that resources and attention from a public policy and planning perspective have marginalized LGBTI people.

Furthermore, Lane et al., (2008) state that although LGBTI people, especially MSM and transgender people have been identified as high-risk groups for HIV infections, prevention strategies nationally (South Africa) have mostly focused on heterosexual women and mother-to-child transmission of HIV. The National Strategic Plan for HIV, TB and STIs from 2012 mentions MSM and transgender people as 'key populations' (South African National AIDS Council, 2011) however, this does not necessarily translate into actions to address their health needs or improving outcomes (Lane et al., 2008; Stevens, 2012). Studies suggest that homophobia and patriarchy strongly influence healthcare planning and the care given to LGBTI patients (Sandfort et al., 2013). Homophobia in its blatant and more covert ways has come to characterize the experience of LGBTI people in healthcare facilities. More broadly, services and treatment are not the only concern when addressing health systems challenges for the LGBTI community, but health seeking behaviours are also affected.

Matebeni et al., (2013) illustrates this gap, lesbian women have also been ignored in health promotion strategies for HIV and sexual health, leading to the lack of knowledge among lesbian women on how to protect themselves They recount narratives from lesbian women living with HIV and illustrate the gaps in knowledge about lesbian women's sexuality and their risks. A consequence of this is that lesbian women are not aware of the risk and the ways in which they can contract HIV, or better protect themselves. Nel (2009) maintains that healthcare professionals need to recognize that the assumption of equality maintained through treating every patient the same is inherently biased. Simply, healthcare professionals need to acknowledge diversity among patients so as to attend to their different needs. Albeit, the umbrella term LGBTI is often used to describe non-heterosexual people when in reality, there are a range of differences within LGBTI people and these differences can be the key to treating specific needs.

In the absence of sympathetic and understanding healthcare workers, Lane et al., (2008) found that MSM who seek medical attention opt to have their ailments untreated or have to take the decision to travel great distances to health facilities that specifically attend to non-heterosexual patients. Also, for men who do not identify as gay choosing not to disclose anything about their sexual practices to healthcare workers is part of a key strategy of remaining invisible to their communities to protect themselves. A study conducted by OUT LGBTI Wellbeing in 2003, looking at levels of empowerment among gay and lesbian people in Gauteng, showed that 12% of the respondents (n = 487) reported living with conditions such as anal bleeding, haemorrhoids and genital infections, without seeking care out of fear of discrimination based on their sexual orientation or gender identity. Logie (2012) states that the prevalence of sexually transmitted diseases among LGBTI people can in part, be attributed to delaying to seek care and experiencing discrimination when seeking care.

Accessing healthcare in South Africa is not only a matter of confronting homophobia from healthcare workers; it is an experience tied to socio-economic status as well. Nel (2009) alludes to the fact that much of the literature on violence against LGBTI communities emanates from township contexts, where adversity and poverty dominate. Although this proposal does not address this relationship, it needs to make clear that the experience of discrimination, violence and homophobia that affects health-seeking behaviour in South Africa is linked to class and race and is the consequence of a historical relationship between racial oppression and identity displacement that emerged among racially oppressed communities. Thus, Polders et al., (2008) state that "gay men and lesbian women cannot be considered a homogeneous group. White people are, for example, in general more highly educated and more economically stable than black South Africans (Nel, 2005). LGBTI people with better economic resources are in better positions to access private healthcare and attend clinics that treat their specific needs. In addition to this, racial profiles affect access to healthcare as well (Meyer et al., 2008).

While access to healthcare for sexual and gender minorities is influenced by a number of factors, and also depends on LGBTI people's intersecting identities, the experience of homophobia and discrimination – or the expectation thereof – is a key determinant of LGBTI people's health-seeking behaviour. Evidence on

the effects of healthcare worker attitudes on the health seeking behaviour of LGBTI patients has shown that the attitudes of healthcare workers act as barriers in seeking healthcare (Corliss, Shankle, & Moyer, 2007; Lane et al., 2008).

2.3 Attitudes and beliefs

Providing holistic healthcare requires adequate skills, resources, the right attitude and knowledge from healthcare workers (Makadon, 2006). Thus, these elements collectively need to be addressed to improve access to healthcare for LGBTI people. Understanding the attitudes of healthcare workers requires an intersectional approach and critical engagement that does not isolate them, but explores attitudes and beliefs as the sum of a whole (Makadon, 2006). South African medical students and professionals form part of a tapestry of cultures, languages, religions and history that are unique. Therefore, the intersection of these aspects can inform attitudes hence they need to be explored. Medical professionals, like all human beings, "are natural categorizers who rely on cognitive schemata to simplify the vast array of social stimuli" (Meyer et al., 2008, p. 837).

Kelly et al., (2008) note that creating curricula that sensitizes medical students to the needs of LGBTI patients requires an awareness of the social and cultural aspects that inform how students will receive material on LGBTI health. Matharu, Kravitz, Mcmahon, Wilson, & Fitzgerald, (2012) state that targeting attitudes among health professionals can provide insights into ways of structuring content taught on LGBTI health. Drawing on long standing studies on cultural competency, Perloff, Bonder, Ray, Ray, & Siminoff, (2006) argue that health professionals draw on demographic categories and metatheories to develop expectations, stereotypes of individuals from different religions, economic backgrounds, and ethnicities. One can argue that this categorization can extend to sexuality as well.

It is worth noting that much of the literature that specifically explores student's attitudes is quantitative and emerges from American contexts. Although these studies may enrich our understanding on attitudes, quantifying something as nuanced as attitudes and beliefs is quite a difficult task. Kneebone (2002, p. 515) suggests that "in real life, medical decisions are seldom based on science alone, but instead on a complex amalgam of factual knowledge, personal experience, anecdote and empathy played out against background professionalism and underpinned by a sense of care and compassion".

Wilson et al., (2014) state that there is a lack of training that tackles aspects such as religion and values which have been identified as predictors of attitudes towards LGBTI patients. In a 2004 Austrian study Arnold, Voracek, Musalek, & Springer-Kremser, (2004) compared attitudes towards homosexuality among medical students (n=122), veterinary medicine students (n=153) and political science students (n=145) found that students belonging to medical disciplines held negative attitudes towards homosexual people In contrast, those in the social science discipline showed tolerance and positive attitudes towards homosexual people.

The difference observed in attitudes according to Arnold et al., (2004) and similar studies that have been carried it out is that medical students are trained to examine the body and not interrogate their positionality when treating patients *(also* see *Sanchez et al, 2006)*. Moreover, neutrality is stated as an important element for doctors to have, however, as the literature demonstrates doctors are not always neutral. Moving forward their curriculum needs to respond to this reality. In addition, Arnold et al., (2004) state that these findings suggest that there need to be more interventions to better train medical students.

According to Mayer et al., (2008, p. 990) "the optimal provision of healthcare and prevention services to sexual and gender minorities requires providers to be sensitive to historical stigmatization, to be informed about continued barriers to care and the differential prevalence of specific risk factors and health". Thus, Ard & Makadon (2012) suggests that practices such as taking a patient history, which do not make assumptions about one's sexual identity where doctors are trained to ask open-ended questions, are key steps in training medical professionals to be aware and to not impose their own assumptions onto patients. This initial interaction is especially important in that it may be the first time a patient discloses their sexual orientation therefore, training health professionals to be sensitive to these realities makes a significant difference.

In the study above by Muller (2013) looking at the MBChB curricular at the University of Cape Town she states that the MBChB curriculum did not address issues of "stigma, discrimination, and social exclusions which are crucial predictors of LGBTI people's health" (Müller, 2013, p.5) . This is in contrast to the core ethical values and standards for good practice prescribed by the Health Professions Council for South Africa which promote empathy and sensitivity to social situations patients face and respecting patient choices despite one's beliefs (Health Professions Council of South Africa, 2008). Although this may be prescribed as a code for practising, it may not be translated into what health professionals do. How can the curriculum bridge the gaps between this ethical code and students' beliefs, if what they are taught is silent about these issues?

Bennett and Reddy (2009) argue that creating opportunities within teaching that destabilize norms and prejudices students have can facilitate openness and understanding towards people outside of their circles. Müller, (2013) highlights that teaching methods employed in the health sciences faculty at UCT that tackle LGBTI health are uniform, take on lecture formats and have a biomedical focus. This essentially limits the level of engagement students have and thus limits the extent to which they can challenge their own beliefs (Muller, 2014). For example, Makadon, (2006) & Wilton, (2000) have shown, religion has been largely implicated in negative attitudes towards LGBTI people. Christianity, one of the most practiced religions in South Africa, often condemns homosexuality (Bhana, 2012) . Religion and culture are the building blocks in establishing values and can become prescriptive in the way in which people live their lives (Fausto-Sterling, 2005). This is often the basis for people's prejudice against LGBTI individuals (Fausto- Sterling, 2005). Therefore, it is imperative to address medical students' own religious beliefs and discuss how they might affect healthcare provision.

2.4 Pedagogical approaches

Moreover, “providing care to a high standard requires a sound knowledge-base” (Wilton, 2000, p.3). Therefore, evaluating how the curriculum is designed in medical schools can provide insights into how doctors are introduced to health issues affecting LGBTI individuals. Moreover, open a window into understanding their attitudes and perspectives. The meanings attached to shaping syllabi and imagining pedagogical approaches that interact with the realities experienced by communities on the ground level is scarcely explored (Bennett & Reddy, 2009). How does the syllabus taught to doctors allow them to engage with the realities of gay, lesbian, bisexual and transsexual individuals living in South Africa? Muller and Crawford-Browne probe deeper into this question and suggest that the culture of higher education in South Africa is rooted in conservative, patriarchal and heteronormative approaches, thus, going beyond these confines would be a monumental leap (Müller & Crawford-Browne, 2013).

Bennett and Reddy (2009) interrogate the history of pedagogical approaches informing medical curricula in South Africa and argue that to a large extent one cannot engage fully with the pedagogies on sexuality within South African universities without interrogating the elitist nature of these institutions and the demographic make-up of those that get to generate knowledge within these spaces. The privileged statuses of universities are far removed from the realities of lesbian women facing “corrective” rape in Soweto or in Khayelitsha which is down the road from UCT where this study is conducted. Tracing the history of the health sciences teaching in South Africa cannot be divorced from its relationship with the systemic racial oppression and politicized history from which it emerges.

Therefore, health sciences should encourage critical engagement with the contexts and realities in which health professionals in training will work (Bennett & Reddy, 2009). According to Kelly et al., (2008) in the United States there has been recognition of the disparities in health for racial minorities, recognising what effects these have had in health outcomes among these groups. Similarly, Muller & Crawford-Browne (2013) argue that at the University of Cape Town, transformation has taken on the same trajectory addressing racial barriers through a strong transformation agenda. However, LGBTI issues have not been prioritized at this level within the university space and in the curriculum prescribed in the health sciences at least.

There needs to be an awareness of the ways in which historical legacies and social exclusion have adversely affected LGBTI people and how these interact with health outcomes observed. The literature has made these links between racial subjugation and health outcomes. However, this has not been applied to sexual and gender minorities (Muller, 2014). Also, the biomedical discourse grounding health sciences discourse and training isolates the body from its social context and provides very little or no space for engaging with individuals’ experiences outside the of illness (Kneebone, 2002).

Within South Africa's pre-democratic landscape, this biomedical perspective has been coupled with racial and patriarchal norms intertwined with the nuances of identity and ownership not only of land but also bodies that reside in it. As such, during the Apartheid period existing in a black body would force one to live within an intersectional web of racial oppression, patriarchal norms and live as a site of conflict (van Zyl, 2011). Accordingly, one might imagine then the intricacies of living in such an environment as a gay, lesbian, bisexual or transgender South African.

In mapping the pedagogies of sexuality within South African universities, Bennett & Reddy (2009) looked at 22 universities and found that within the health sciences (where such courses are offered) bio-medical approaches still dominate the way sexuality and gender are taught. Teaching within departments such as gynaecology, urology, and community health largely focused on sexuality in relation to sexual dysfunction and reproductive health. The University of Pretoria was one exception in this case, where a course specifically framed around sexuality is offered in their health sciences faculty. Within UCT, a "Gender and Health" course offered in Public Health which explored the intersectional relationship between gender and healthcare.

Obedin-Malver et al., (2011) conducted a study in 2011 evaluating the time dedicated to LGBTI health in undergraduate medical school curricula in the United States and Canada across 176 schools. On average the time spent was 5 hours, there were variations in between the clinical years and the time ranged from 4 hours to 2 hours respectively. In concluding the paper, the researchers' note that the deans participating in the study acknowledged the gap in their teaching with regards to LGBTI health. In another study Kelley et al., (2008) introduced training on LGBTI health to a curriculum for medical students as an intervention at the University of California and found there to be positive feelings of professional adequacy and capacity to provide quality care after taking the course.

Albeit, there is a growing focus on the experience of LGBTI individuals in South Africa regarding access to healthcare given the vulnerabilities mentioned in this paper, training of medical professionals has not received attention. Thus we need to ask what it means to re-imagine a curriculum that takes into account the experiences of LGBTI people. Muller (2013, p. 1) contends that "educating health professions students on the health needs of LGBTI patients is essential to improving health by providing competent and non-judgmental care". This resonates with the guidelines set by the Association of American Medical Colleges (AAMC) which state the medical school curricula needs to provide comprehensive content (including communication and training) that speaks to specific healthcare needs in the LGBTI community so as to foster excellent care, knowledge, and skills for medical professionals providing care to LGBTI people.

Bennett and Reddy (2009) argue that while the political landscape and lived realities of students continuously evolves, the way in which teaching methods have remained stagnant has reinstituted the idea of separation between academic theory and ways in which one lives their life. Medical practitioners are

expected to respond to the realities within their context. Therefore, health sciences need to reconcile with societal experiences as they evolve to produce graduates and health professionals who are relevant and conscious – and can provide quality care for LGBTI patients. The first step towards a curriculum that fosters such attitudes, skills and knowledge is to understand the needs of medical students in learning about LGBTI health.

3. Methodology

This field of study in South Africa is emergent; thus, large gaps exist in curriculum focusing on LGBTI health in medical schools and, in our understanding of contextual realities that affect student attitudes towards sexual and gender minorities (Müller, 2013). This is a secondary analysis of a mixed methods study assessing attitudes and beliefs held by 5th-year medical students at the University of Cape Town towards sexual and gender minorities. This study may provide important insights for curriculum development that include teaching about the health needs of sexual and gender minority patients.

3.1 Study Context

The University of Cape Town's faculty of Health Sciences is one of the oldest in the country. It was established in 1912 and has gained prominence both locally and internationally over the years having been the site of the first heart transplants in the world in 1967 (Müller & Crawford-Browne, 2013; University of Cape Town, 2015). The faculty offers a six year medical degree programme with 1200 students spread out across the six years (Müller & Crawford-Browne, 2013). It's teaching also extends to some of the biggest hospitals in the country namely, Groote Schuur Hospital and Red Cross War Memorial Children's Hospital (University of Cape Town, 2015).

Muller and Crawford-Browne (2013) argue that, despite the facilitated processes of transformation within the faculty and the university more broadly in addressing gender and racial discrimination, homophobia still exists as a lived experience of discrimination for LGBTI students and staff. To some extent this is perpetuated through the invisibilization of LGBTI health issues within the curriculum. According to (Müller, 2013) an evaluative exercise of the MBChB curriculum in 2011 showed significant gaps in engagement with LGBTI health issues in the curriculum.

As it currently stands, pedagogical approaches addressing sexuality and gender outside of heteronormative binaries do not exist in the health sciences at the University of Cape Town (Bennett & Reddy, 2009) . This is particularly relevant in this study as it creates a window to explore the relationship between the lack of LGBTI health education and students' perceived preparedness and attitudes.

3.2 Study design

This study is linked to the on-going study 'Teaching and Learning for LGBTI Health', PI: Dr Alexandra Muller, HREC Ref: 732/2013.

In utilizing secondary analysis of the following data collection, this study will assess and understand the perspectives of the 5th year MBChB students regarding sexual and gender minorities.

1. Quantitative survey

2. Focus group discussions

3.3 Sampling

This study uses secondary analysis of a convenience sample of students in their 5th-year of the MBChB degree at the University of Cape Town's Health Sciences Faculty. The 2014 cohort of 5th year students in the MBChB programme participated in interactive workshops on LGBTI health carried out by the Obstetrics and Gynaecology department as part of a broader study from which this study emerged. The class is divided into 5 groups that take block rotations in the department throughout the year and will be the selection pool for participants in this study. All students attending the workshops were introduced to the research project, and asked to fill out the survey at the beginning of the workshop.

To recruit for focus group discussions, the research was introduced during the workshops and interested students were asked to provide their contact details. An invitation to a focus group slot was sent out to the students who have submitted their details via email and text messaging.

3.4 Data collection

3.4.1 Survey

To generate evidence that is comparable to research done in other settings, the first component of this study will examine students' attitudes and knowledge by using a quantitative instrument that has previously been used with good psychometric properties.

Prior to the workshops provided by the Obstetrics and Gynaecology department each student received a survey to fill out that is tailored to assess attitudes and knowledge towards homosexuality. Items in this survey examined students' attitudes, their perceived comfort in providing care to LGBTI patients, as well as a basic understanding of key LGBTI health concerns. The survey consists of 29 items, and is an expanded version of the Homophobia Scale (Wright, Adams, & Banart, 1999) with additional questions for our context. The Homophobia Scale is a self-report questionnaire designed to measure the cognitive, affective and behavioural aspects of homophobia. The scale contains 25 items that are scored on a 5 point Likert scale, and includes items that assess social desirability. The scale has been used with undergraduate students

and a recent systematic review of instruments that measure homophobia found the Homophobia Scale to have acceptable psychometric properties (Costa, Bandeira, & Nardi, 2013).

In addition to the Homophobia Scale, there are 4 added items to the questionnaire, which assess students' knowledge about key LGBTI health concerns and students' feelings of preparedness and comfort in providing care to LGBTI patients. (*See Appendix 3 for full survey*). Students were able to indicate their consent to have their questionnaire included in the research project by signing a clause at the bottom of the questionnaire. Only questionnaires of students who consented to be included in the research sample were analysed for research purposes.

The survey instrument, sampling and recruitment have been approved by the HREC for use in the on-going parent study (HREC ref: 732/2013)

3.4.2 Focus groups

Whilst the quantitative instrument will provide comparable evidence, students' attitudes and beliefs are complex and not easily classifiable into quantitative data. Therefore, an additional qualitative component of this study was employed to provide the opportunity for in-depth examination of student's attitudes, beliefs and experience with regards to sexual and gender minority patients.

Focus group discussions facilitate a space whereby participants create meaning for themselves, thus, allowing the researcher to observe points of convergence and disagreement in group opinions and perceptions (Babbie & Mouton, 2010). Therefore, I believe this exercise will aid better understanding of student's attitudes and beliefs regarding LGBTI patients and LGBTI health. Four focus group discussions with students who have attended the LGBTI workshops were coordinated and facilitated. The discussion focused on students' training experience, attitudes, beliefs and perceptions of homosexuality (see Appendix 2 for discussion schedule). Each focus group consists of 6-8 students and was conducted within a small classroom space on campus to make it convenient for students to attend. Refreshments were provided following each focus group discussion.

Focus group discussions require facilitation skills and dealing with feelings of discomfort that may arise (Hennink, Hutter, & Bailey, 2011). Sexuality within the South African context, in particular, has been historically a contested topic, therefore when conducting this research feelings of discomfort need to be considered beforehand. In my previous work with the African Gender Institute I have had practice in facilitating these sensitive conversations and will draw on these experiences for this study. All focus group discussions were recorded and transcribed for accuracy.

The focus group questionnaire has been approved by the HREC for the on-going parent study (HREC ref: 732/2013)

3.4.5 Inclusion and exclusion criteria

Inclusion criteria

This study recruited 5th year medical students in the MBChB degree because they have had experience in interacting with patients and have developed the professional skills in the years they have dealt with patients. The group is in their pre-final year and will be entering into different settings in their internship year where they are likely to interact with LGBTI people, thus making them the ideal group for the study. Secondly, this cohort will attend a 3-hour LGBTI health workshop offered by the Obstetrics and Gynaecology department. Also, they would have had time to think about and engage with LGBTI health issues before participating in interviews.

The questionnaire was administered anonymously to students at the introductory workshop session. Students were able to indicate their consent to have their questionnaire included in the research project by signing a clause at the bottom of the questionnaire. Only questionnaires of students who consented to be included in the research sample will be analysed for research purposes. Students were enrolled in focus groups after giving informed consent. Following the workshops, students who had volunteered to participate chose a slot in the following week for a time that is suitable for them.

Exclusion criteria

Only students who consented to participate were enrolled in the study.

3.5 Data analysis

Data from the surveys will be entered into Excel and further analysed using STATA, analysing data for descriptive statistics and correlations. Students' demographical data will be analysed descriptively. Likert scale data will be analysed descriptively, and, where appropriate, correlation analysis will be employed to examine potential correlations. The qualitative data (focus group discussions and observation nodes) will be analysed with thematic analysis. Making use of this method allows for a more systematic way of analysing data that is both broad and narrows down the analysis towards focused and concrete themes (Braun & Clarke, 2006). Specifically, thematic analysis involves creating thematic networks that identify themes ranging from basic themes which are central notions emerging from data, to organizing themes which are a cluster of basic themes and in the end identity global or broader themes that can help explain the observable trend in a study (Attride-Stirling, 2001). NVivo 10, QSR international software will be used to analyse the data. After an initial reading and coding of the data, I will consult with my supervisors who will also code the data and we will later compare results and engage in a robust discussion if discrepancies in our findings occur. This will strengthen the validity and rigor of the data. Data collected from the surveys, focus groups and participant observations will be triangulated and cross cutting themes will be discussed.

4. Ethical considerations

In conducting the primary data under the parent study, I was aware that for some students this was a sensitive topic and may solicit feelings of discomfort. Thus, Hennink, Hutter & Bailey warn that these spaces need to be moderated and facilitated in such manner that participants are protected (Hennink et al., 2011). This was done by establishing that each focus group space is safe and that no individual is allowed to insult or ridicule another. Moreover, it was clear that I cannot guarantee confidentiality.

The surveys were completed anonymously. The focus group discussions, during which students cannot remain anonymous were facilitated by facilitators who are not part of the clinical educators' team, in order to ensure students' confidentiality and avoid any potential conflicts and bias in future teaching encounters. All outcomes of the group discussions will be transcribed with pseudonyms, and clinical educators will only have access to the transcripts after they have been anonymised. The PI, who is not involved in student assessment, will oversee this process. We are aware that the survey and/or the group discussions might remind students who identify as LGBTI of traumatic past events or experiences. All students will be made aware of Triangle Project's counselling hotline for LGBTI people (www.triangle.org.za), as well as the possibility of contacting student wellness.

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PART B: STRUCTURED LITERATURE REVIEW

1. Introduction

The intersection of sexuality and societal norms produces a unique set of lived experiences, these norms have historically and currently shape the realities of many homosexual people to date (Matharu et al., 2012). These permeate across many institutions of society including the health system. The contribute to ideas that are acceptable or rejected in society, likewise the pathologizing of homosexuality contributed to the narrative of "otherness" and abnormality to classify homosexuality. Despite the inroads made in declassifying homosexuality as a mental disorder in the DSM, much of the attitudes and ideas held against people who are LGBTI still affect their quality of life.

In clinical settings in particular, homophobia has made seeking healthcare a daunting task for LGBTI people. Studies focusing on the experiences of LGBTI people in the health system in South Africa has indicated that homosexual people experience homophobia while seeking health (Ard & Makadon 2012). This includes but not limited to name calling and ill-treatment based on their sexual orientation. This has a direct influence on adherence, health-seeking behaviour and health outcomes for LGBTI patients (Makadon 2006; Stevens 2012).

Part of improving health outcomes for LGBTI is capacitating health professionals about the vulnerabilities and health needs of LGBTI people. The starting point would naturally be with the curricula taught to medical professionals. Pedagogies and content taught to medical professionals are key in addressing gaps in knowledge and facilitating better interactions between LGBTI patients and medical professionals attending to them (Muller, 2015). Albeit, research focusing on LGBTI health in medical training has concluded that LGBTI health is a blind spot in the training of medical students. In the United States, Obedin-maliver et al., (2011) evaluated 176 medical schools and found that on average, only 5 hours were spent LGBTI health (IQR, 3-8 hours). Similarly, Müller (2013) mapped curricular at the University of Cape Town and found that "LGBTI health was not adequately covered" and in allied health disciplines, there was no coverage of LGBTI health. Müller (2013) argues that for health professionals to develop positive attitudes towards LGBTI people, universities need to be intentional about including LGBTI health in their curricular.

Student attitudes have strongly illustrated the need to review medical curriculum in various contexts. Arnold et al. (2004); Kan et al., (2009) and Sanchez et al., (2004) have evaluated medical students' attitudes towards homosexuality and found them to be more negative than students in other disciplines. Moreover, lack of exposure to LGBTI health in their medical curriculum contributes to a lack of preparedness in treating LGBTI patients (Kan et al. 2009; Sanchez et al. 2004). Although these studies are from different contexts, they provide a good basis for similar studies in South Africa. Insights gained from exploring student attitudes can shape paradigms or frameworks used to teach about gender and sexuality in medical schools.

1.1 The Study Question

The main research question in this study is exploring what attitudes and beliefs 5th year medical students at the University of Cape Town, Western Cape hold regarding LGBTI people and homosexuality.

2. Literature Reviewed

Gay rights activism over the years has brought about changes in the legislation in the continent and with the global community thus making LGBTI people increasingly more visible, allowing them to claim their full citizenship rights—eligible for benefits provided by the state such as public healthcare. Accordingly, within various areas of medicine, doctors will increasingly encounter non-heterosexual patients. Estimates in South Africa indicate that LGBTI people make up 5-10% of the total population (Polders & Wells, 2005). This means that medical doctors operating in South Africa are likely to interact with LGBTI patients in their medical careers (Müller, 2013). Perloff et al., (2006) argue that the training of medical professionals is an important factor in health outcomes for minority groups given the nuanced health needs and specific vulnerabilities they have. Doctors and other health professionals need to pay special attention to the needs and vulnerabilities. The conscientization of health professionals to the needs of LGBTI people goes beyond an issue of professional competency—it is a human rights issue (Müller & Crawford-Browne, 2013)

Poor health outcomes within the LGBTI community are well documented in research. Discriminatory encounters within the health system contribute to these outcomes in varying degrees. Experiences of discrimination such as name calling or sub-standard treatment often lead to avoidance of health facilities by LGBTI patients this can lead to untreated illnesses which can affect their quality of life (Snowdon, 2010). According to Ard & Makadon (2012), the health system has been “antagonistic” to the LGBTI community. This can be traced back to the pathologizing of homosexuality within medicine, it is only in 1972 where homosexuality was no longer defined as a mental illness. Even so, other areas of the healthcare system, such as HIV prevention and programming homosexual people still remain excluded from mainstream healthcare.

Connected to this are curricular taught in medical schools, researchers have argued that the pedagogies applied in teaching health professionals further make health concerns of LGBTI people invisible by not dedicating time and efforts in teaching students about LGBTI health concerns. Two studies conducted with medical students in Austria and Hong Kong showed that medical students compared to students in other students held negative attitudes towards homosexual people. The study in Austria provided compared attitudes towards homosexuality among medical students (n=122), veterinary medicine students (n=153) and political science students (n=145), they found that students belonging to medical disciplines held negative attitudes towards homosexual people (Arnold et al., 2004). In contrast, those in the social science discipline showed tolerance and positive attitudes towards homosexual people (Arnold et al., 2004). Factors implicated in medical students’ negative attitudes included religious beliefs and limited exposure to LGBTI related material in their curriculum.

Similarly, in Hong Kong, (Kan et al., 2009) conducted a cross-sectional study comparing homophobic attitudes among medical and non-medical students at the University of Hong Kong. They found that over 25% of the medical students responding to the survey viewed homosexuality as a mental illness. Over 15% of these students actively avoided physical contact with homosexual people fearing the risk of being infected with HIV. Medical students associated homosexuality with sexuality transmitted diseases. In comparison, students in non-medical fields held liberal views on homosexuality. Interestingly, similar characteristics found among students who were homophobic, were religious beliefs, being male and having no exposure to homosexual people in their lives. Drawing on their research, (Kan et al., 2009) argue that doctors' inability to discussing sexual orientation may influence the quality of medical care and even the fundamental diagnosis of illnesses (Kan et al., 2009, p.66).

2.1 Attitudes, beliefs and pedagogies

Understanding the attitudes of healthcare workers requires an intersectional approach and critical engagement that does not isolate them, but explores their beliefs and attitudes as the sum of a whole (Makadon, 2006). South African medical students and professionals form part of a tapestry of cultures, languages, religions and history that are unique, the intersection of these facets can inform attitudes. Medical professionals, like all human beings, "are natural categorizers who rely on cognitive schemata to simplify the vast array of social stimuli" (Matharu, Kravitz, Mcmahon, Wilson, & Fitzgerald, 2012, p.837). They are not immune to influences and ideas that are part of their socialization; they are part of communities and families that shape their worldview, even though medical training emphasizes impartiality this may not be the case in real life situations.

In applying feminist critiques Muller & Crawford-Browne (2013) argue that the positivist pedagogies applied in medical training limit students' understanding of people's lived experiences. Biomedical categories disregard the complexities of identities and sexualities. Our understanding of epidemics and designing of services is oftentimes approached on the premise of similarities between patients, as the research indicates this is not always beneficial for LGBTI people. They have a set of health needs that are unique because of their social experiences and sexual practices. Moreover, understanding health as a product of intersectional identities is crucial. Intersectionality is a feminist framework that is beneficial in understanding holistic healthcare, it encourages the understanding of human beings as a combination of categories and realities. For example, being homosexual, black and middle class can shape a patient's life differently. On the other hand, it is argued that the biomedical framework is based on impartial empirical data, therefore it is translatable across contexts. Conversely, the history of medicine has shown that socially created phenomena directly influences the field (Kneebone, 2002; Müller & Crawford-Browne, 2013). In the past, science and medicine were used to justify racism towards black people world over. Through contested scholarly debate and changing societal structures we can now discard the merits of these ideas. Thus, claiming impartiality within medical pedagogies is debatable.

Bennett and Reddy (2013) argue that creating opportunities within teaching that destabilize norms and prejudices students have can facilitate openness and understanding towards people outside of their circles. Actively engaging with attitudes within curricular can help health professionals to acknowledge their bias or prejudice when it comes to homosexual patients. This is particularly imperative because homophobia has been shown to diminish the quality of services provided by health professionals (Chapman et al., 2011; Parker & Bhugra, 2000).

In parallel to this, negative attitudes expressed by health professionals towards LGBTI patients diminish their ability to seek healthcare or adhere to treatment (Stott, 2013). Stigmatization greatly affects the mental health of LGBTI patients and as Lane et.al (2008) argue, it contributes toward the greater narrative of violence towards sexual and gender minorities in South Africa (Lane et al., 2008). In their, study Lane et al., (2008) present narratives that show the link between homophobic attitudes and poor health outcomes, one participant in the study shares his experience:

"…*The nurse will ask questions like 'What was in here?'—she means in the anus. And that makes us afraid of going to the clinic to get treatment on time and that's why many gay men get sick"* (Lane et al., 2008, pp.431).

South Africa has been a prime example of how constitutional reform has not translated into positive lived experiences for gender non-conforming or homosexual individuals. Research in this area has shown that homophobia and discrimination still characterise the encounters of homosexual people with the health system (Mcgarry et al., 2009; Sandfort et al., 2013). "Resolving legal anomalies alone will not change a culture of social exclusion" Scott et al. (2004,pp.10). Therefore, it is almost impossible to expect a change in societal ideas and norms around sexuality without active and conscious redress within a health system. This should start with reform within our medical schools to facilitate transformation from within a system to make a meaning contribution to the health and lives of LGBTI people.

2.2 Challenging pedagogies: LGBTI inclusive curriculum

Studies assessing the effectiveness of LGBTI inclusive material in the curriculum taught to medical students have shown that it can have positive results regarding capacitating medical students, increasing comfort and preparedness to address LGBTI health concerns. Mcgarry et al.(2009) developed a three-hour seminar developed around LGBTI health for General Medicine residents at Rhode Island Hospital, Brown University. A pre-seminar survey acted as a baseline for establishing students self-reported levels of readiness in dealing with LGBTI health needs. This survey showed students felt less confident in attending to homosexual patients. In comparing results of the survey following the seminar, the researchers noted significant changes in residents who had previously indicated discomfort when treating gay and lesbian patients. Their levels of preparedness were better following the seminar. Overall the change in rating was 2.35 before the seminar and 1.88 following the seminar ($p < 0.0001$).

Likewise, White et al. (2015) conducted a yearlong study between 2009-2010 assessing levels of preparedness among medical students in dealing with LGBTI health concerns. The second objective of the study was an evaluation of the curriculum and how it prepared students to treat LGBTI patients. The study was conducted in the United States with 23 medical students from Canadian allopathic, U.S. allopathic, and U.S. osteopathic institutions. Self-reported scores were analysed and these indicated that students were only comfortable in areas such as HIV and sexually transmitted diseases as they relate to homosexual people. Also, most felt unprepared to deal with transgender health issues especially in areas such as gender affirming surgery. These gaps in knowledge were similar to those reported by the schools' deans indicating a correlation in students self-rated capacity and what is taught in their curriculum. After noting this relationship, the authors argue that institutions need to improve its curriculum to better equip doctors.

In South Africa, Müller (2013) assessed the health sciences curricular and its ability to teach and capacitate its medical regarding LGBTI specific health concerns. In mapping curricular the study sent out an online survey to lectures and academic staff from preclinical, clinical and allied health departments. The survey asked questions on the theory of sexuality, specific diseases and health conditions, as well as about the impact of gender and sexuality on health-seeking behaviour and access to care. The study found that no LGBTI health related curricular was integrated into other degree programmes besides the MBChB programme. Though, within the MBChB programme, what was covered was limited and not nuanced enough to tackle student's attitudes and key LGBTI health topics such as safer sex, mental health, substance abuse and adolescent health.

These studies have collectively made a case for challenging pedagogies applied in medical training. These studies also highlight the importance of integrating LGBTI health issues into the curriculum in pursuit of fair and inclusive healthcare to everyone since sexualities are overlooked in discourses on health access, health systems management, and epidemiology (Müller & Crawford-Browne 2013). Additionally, this would mean creating inroads in healthcare provision for an underserved population. The biomedical and pathological aspects of sexuality cannot be isolated from its social and political meanings. Müller & Crawford-Browne (2013, pp.27) argue that "when people's sexuality is reduced to anatomical (ab)normalities and physiological (dys)functioning, their sexual identities, desires and pleasures are rendered invisible".

2.3 A focus on LGBTI health

As a minority group, the LGBTI community has faced a number of challenges and vulnerabilities. These stem from factors ranging from social inequalities to disproportional infections of certain diseases. Even though, being homosexual is not a risk factor for disease, social experiences and certain sexual practices increase risks among this group (Müller, 2013). Mental health for example is a widely underlined concern among homosexual people. According to Ard & Makadon (2012), teenagers who are homosexual are more likely to commit suicide then their heterosexual counterparts. Polders et al., (2008) argue that the propensity

for developing mental health disorders within the LGBTI community is as result of living in stigmatizing communities. Some studies have found that teenagers who are homosexual frequently experience bullying and reporting injuries from fights while in school and sexual assault (Ard & Makadon, 2012; Kitts, 2010). In South Africa, the eminent threat of violence both physical and emotional is an everyday for homosexual people, more especially those living in low-income settings.

Moreover, violence and its impact the epidemiology of diseases in South Africa is not unique, cases of homophobic violence have become more gruesome with widely publicized cases of rape and murder of lesbian women and gay men living in townships (Lane et al., 2008; Pakade, 2013). This directly affects the incidence and prevalence of sexually transmitted diseases among homosexual people. “Corrective rape” for example has increased the risk of HIV incidence among lesbians and WSW, where the risk was thought to be low, these societal realities have significantly changed how we think about HIV transmission among females in South Africa’s population (Sandfort et al., 2013; Smith, 2015). Stigma compounds the risk because it deters women from screening for infections, it is reported that for lesbian women in particular uptake of health services is low (Matebeni et al., 2013).

Similarly, men who have sex with men and transgender people have been identified as key populations with the 2010 National Strategic Plan for HIV, TB and STIs 2012 (South African National AIDS Council, 2011). A study assessing the prevalence of HIV among 285 MSM in two cities in South Africa namely, Johannesburg (n=204) and Durban (n=81) found a 49.5% and 27.5% prevalence of HIV in the sample. HIV prevalence in the general population is estimated to be 18.9 % and given the small sample in the study, the prevalence was remarkably high. The study also showed there was a higher HIV prevalence among MSM who self-identified as gay than those whose sexual orientation was bisexual or straight. Sexually transmitted diseases and poor mental health are among the frequent areas of concern for LGBTI people and their health. Their experiences of discrimination and alienation within society have been implicated poor health outcomes observed.

2.4 Gaps in research

Feminist critiques have illustrated a number of blind spots in health research about LGBTI people, especially in our understanding of HIV. Poteat et al. (2014) state that much of the research that looks at LGBTI people’s experiences often centres around gay men or men who have sex with men. Women who have sex with women have been under-researched and excluded from developing research on major epidemics such as HIV (Sandfort et al., 2013). In South Africa for example, WSW have an increased risk of HIV, especially in low income areas where the presence of homophobia makes them vulnerable to sexual violence and rape. In their study (Matebeni et al., 2013), found that lesbian women who were HIV positive were not aware of their risk because they were not having penetrative sex with men. The women in the study underestimated their risk because they were exclusively having sexual intercourse with women.

Lesbian and bisexual women often face multiple oppressions in societies like South Africa as women and as homosexual people (Smith, 2015). South Africa has high levels of gender based violence, this couple with high instances of homophobic violence place women who have sex with women at an elevated risk for rape and other forms of gender based violence. Yet, what we know about their risk limited in research and healthcare programming. Moreover, providing nuanced perspectives in LGBTI research is important given the complexities and histories of different contexts.

South Africa has a unique history that was, and to some extent is racialized. Racial experiences also contribute substantially to how LGBTI people of colour engage with the health system(Lane et al., 2008). Zoning in on the race and class divide that currently exists in South African is crucial in discussing the homosexual person the public sector needs to cater for. Socio-economic mean that white homosexual people would be more likely to access private healthcare compared to their black counterparts (J Nel & Judge, 2008). Levels of poverty in the country are still uneven or proportionally distributed across racial groupings. Thus, the intersectionality a person's multiple identities, for example being black, poor and homosexual in South Africa is unique and predisposes a person to specific health risks.

Moreover, some studies focusing on LGBTI health have been geographically located in Western contexts, although these have enriched our understanding of their specific health needs, Africa experiences are missing in these studies. Same-sex relationships within African contexts have been rejected as being "un-African", various cultural norms that affect how homosexual people interact with their society are important in understanding health from a holistic standpoint. These gaps in research and healthcare programming can alienate a number of homosexual patients. But, grouping the experiences of LGBTI people under one umbrella leaves certain experiences in the periphery. Lastly, sensitizing doctors to the needs of patients does not require them to have extensive, highly detailed knowledge on LGBTI health, basic practices such as inclusive language in history taking and using the appropriate pronoun for a patient can create a comfortable environment for them (Ard & Makadon, 2012).

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PART C: JOURNAL MANUSCRIPT

Attitudes, knowledge and beliefs around homosexuality: Exploring the views of 5th-year medical students

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Introduction: Discrimination from health workers has been found to be a deterrent for lesbian, gay, bisexual and transgender (LGBTI) people seeking healthcare. Despite these findings, LGBTI-focused healthcare remains understated in medical training and university curricular. Learning about medical students' attitudes can provide useful ways of identifying interventions to capacitate health professionals to address LGBTI health.

Methods: This study is a mixed methods study, data were collected using a 25 item homophobia scale with additional questions designed for the South African context, and focus group discussions with semi-structured questions.

Results: 157 Medical students in the 5th year class at a university in the Western Cape, South Africa completed the survey, 20 of them formed part of three focus group discussions. Outcomes showed significant gaps in student's curriculum in the area of LGBTI health which influenced their lack of knowledge and preparedness. Considering that homophobia and heterosexism remain widespread in the students' contexts, the findings point to generally favourable views of LGBTI people. In this respect, two thirds of the participants indicated that they are not bothered by seeing same-sex partners together and 64% felt that homosexuality was not immoral and showed support for LGBTI rights. The qualitative findings indicate that a contributing factor in shifting their attitudes based on their own perspectives was a change in environments from their hometowns to university. Students showed a keen interest in early integration of LGBTI health in their curriculum which is encouraging.

Conclusion: Medical training needs to be responsive and intentional about addressing student attitudes towards LGBTI people, as this has implications on the students' perceived competency and affects the quality of healthcare they deliver.

Terms and definitions

LGBTI: Umbrella term used to describe or represent sexual minorities and people in same-sex relationships, the acronym comprises of lesbian, gay, bisexual, transgender and intersex people (Lane et al., 2008).

Homophobia: Is defined as the discrimination and dislike of homosexual individuals, homophobia can be in the form of "physical assault inclusive of rape and murder and less lethal practices such as verbal harassment" (Polders et al., 2008).

Patriarchy: A system through which masculinity and maleness are placed above femininity in such a way that societal rules and systems prioritize men with hegemonic masculinities (Bennett & Reddy, 2009).

Transgender: Individuals whose gender identity is different from the gender they are assigned at birth. Transgendered people do not conform to hegemonic gender roles and sometimes desire to change the sex they were born with (Stevens, 2012).

Sex: Biological categories that distinguish males and females based on reproductive organs and hormonal make up (Mayer et al., 2008).

Gender: Socially constructed categories that define roles and behaviours of men and women. These are also linked to biological sex, for example someone born with male genitalia is prescribed a set of behaviours that are distinct from those of someone born with female genitalia. These are shaped by culture, religion and socialization (Nel, 2005).

Heterosexism: Is the attitude which views heterosexuality as the only acceptable, normal pattern for human relationships and tends to view all other sexual relationships as either subordinate to, or perversions of, heterosexual relationships (Sandfort et al., 2013).

MSM: Acronym is referring to men who have sex with other men. MSM may not self-identify as gay or bisexual (Lane et al., 2008).

WSW: Acronym used in the literature to refer to women who have sex with other women (Pakade, 2013).

Homosexual: term used to describe a person who is sexually, emotionally, or physically attracted to a person of the same sex (Pakade, 2013).

1. Introduction

There has been long standing evidence illustrating disparities in the health outcomes of lesbian, gay, bisexual and transgender (LGBTI) people. The LGBTI community faces a myriad of challenges owing to their sexual orientation and gender identity, they have a disproportional prevalence and risk of sexually transmitted diseases and poor mental health (Mayer et al., 2008). This is not to say there are health problems exclusively affecting LGBTI people. However, the intersection of their sexuality alongside discriminatory social environments, the threat of physical violence and sexual practices means that they are disproportionally affected by some diseases compared to heterosexual people. Thus, sexuality and gender identity are strong determinants of health.

In South Africa, as elsewhere, the attitudes of health workers are important in determining the quality of health care patients receive. The experiences of LGBTI people seeking healthcare have been characterised by stigma and discrimination, which affects their health seeking behaviour (Lane et al., 2008). The 2011 National Core Standards—guidelines set by the National Department of Health outlining the conduct expected of health professionals states that, patients must be treated with care and respect, with consideration for patient privacy and choice (National Department of Health South Africa, 2011).

Matebeni (2003) argues that in South Africa, heterosexism, patriarchy and homophobia have collectively sought to privilege heterosexuality; and that resources and attention from a public policy and planning perspective have marginalized LGBTI people. Accordingly, the history of pathologizing homosexuality served to frame homosexuality as “abnormal” behaviour. Despite the inroads made in achieving equal rights for LGBTI individuals, they continue to struggle for inclusion in ‘mainstream’ medicine (Müller, 2013).

LGBTI individuals face a number of social challenges relating to their sexual orientation or gender identity that shapes their lives and health status. These range from their vulnerability to violence to risks associated with certain sexual practices (Logie, 2012). These need to be well understood and catered for within any health system. This starts with the interaction between health professionals and patients which is guided by their training. Thus, curriculum reform is a fundamental starting point in creating positive environments for LGBTI people seeking health care. The curriculum taught to health professionals has been critiqued for placing LGBTI health issues at the periphery (Snowdon, 2010). Albeit, positivist schools of thought frame the relationship between health professionals and patients as unbiased, founded in empirical findings. However, research has shown that this is not the reality for LGBTI patients, health professional attitudes become an impediment in this relationship (Ard & Makadon, 2012; Sandfort et al., 2013).

Thus, transforming curriculum not only speaks to inclusion in content, but it also touches on important elements such as attitudes and beliefs, which influence the relationship between patients and health professionals as illustrated in the literature. The research that is presented in this article aims to contextually

frame student attitudes and beliefs about homosexuality and examine the factors that contribute to these attitudes. Secondly, it analyses student reflections on current the curriculum and the extent to which the curriculum prepares them to address the needs of LGBTI patients

2. Literature Review

Poor health outcomes within the LGBTI community are well documented (*see* Ard & Makadon, 2012; Meyer, Dietrich, & Schwartz, 2008). Discriminatory encounters with health professionals contribute to these outcomes in varying degrees, in some cases LGBTI patients avoid health facilities which in turn leads to untreated illnesses and affects their quality of life (Snowdon, 2010). Related to this is curriculum taught in medical schools. Researchers have argued that the pedagogies applied in teaching health professionals making the health concerns of LGBTI people invisible by not dedicating time and effort to teaching students about LGBTI-specific health concerns (White et al., 2015). In response to this, there has been a growing area of research focusing on how curricula directly affect student attitudes (Kan et al., 2009). It is also important to highlight that there is a lack of South African research exploring attitudes of medical professionals regarding LGBTI persons and their needs.

Two studies conducted with medical students in Austria and Hong Kong showed that medical students held negative attitudes towards homosexual people compared to students in other disciplines. In Austria, Arnold, and colleagues (2004) compared attitudes towards homosexuality among medical students (n=122), veterinary medicine students (n=153) and political science students (n=145). They found that students belonging to medical disciplines held more negative attitudes towards homosexual people. In contrast, those in the social sciences had positive attitudes towards homosexual people. Factors implicated in medical students' negative attitudes included their religious beliefs and limited exposure to LGBTI-related material in their curriculum.

Similarly, in Hong Kong, Kan et al., (2009) conducted a cross-sectional study comparing homophobic attitudes among medical and non-medical students at the University of Hong Kong. They found that over 25% of the medical students responding to the survey viewed homosexuality as a mental illness, over 15% of these students actively avoided physical contact with homosexual people fearing the risk of being infected with HIV. In comparison, non-medical students had liberal views regarding homosexuality. Interestingly, the research found that among students who were homophobic similar characteristics included religious beliefs, being male and having no exposure to homosexual people in their lives. Drawing on their findings, Kan et al., (2009) argue that doctors' inability to discuss sexual orientation may influence the quality of medical care they give and even the fundamental diagnosis of illnesses (Kan et al., 2009, p.66).

2.1 Effects of curriculum interventions

Studies examining the efficacy of LGBTI inclusive curricular have been shown to improve preparedness and confidence in students' abilities to treat LGBTI patients. Mcgarry et al., (2009) developed a three-hour seminar on LGBTI health for General Medicine residents at Rhode Island Hospital, Brown University. A pre-seminar survey acted as a baseline for establishing students' self-reported levels of readiness for dealing with LGBTI health needs. This survey showed that students felt less confident attending to homosexual patients. In comparing results of the survey following the seminar, the researchers noted significant changes in students who had previously indicated discomfort when treating gay and lesbian patients. Their levels of preparedness were better following the seminar. Overall the change in rating was 2.35 before the seminar and 1.88 following the seminar ($p < 0.0001$).

Likewise, White et al., (2015) conducted a year-long study between 2009 – 2010 assessing levels of preparedness among medical students in dealing with LGBTI health concerns. One of the objectives of the study was to evaluate the curriculum and how well it prepared students to treat LGBTI patients. The study was conducted in the United States with 23 medical students from Canadian allopathic, U.S. allopathic, and U.S. osteopathic institutions. Self-reported scores were analyzed and these indicated that students were only comfortable in areas such as HIV and sexually transmitted diseases as they relate to homosexual people. In addition, most felt unprepared to deal with transgender health issues, especially in areas such as gender affirming surgery. These gaps in knowledge were similar to those reported by the schools' deans, indicating a correlation in students' self-rated capacities and what is taught in their curriculum. After noting this relationship, the authors argue that institutions need to improve its curriculum to better equip doctors.

Interestingly, a curriculum mapping study conducted at the University of Cape Town by Müller (2013), found that no LGBTI health related curricular was integrated into other degree programmes besides the medical programme. Even within the MBChB programme, what was covered was limited and not nuanced enough to tackle student's attitudes, and key LGBTI health topics such as safer sex, mental health, substance abuse and adolescent health were absent in the curriculum. These findings were relevant in grounding the work of this study and further understanding the university context and how this may influence student attitudes.

2.2 Rethinking attitudes in the health sciences

Understanding the attitudes of healthcare workers requires an intersectional approach and critical engagement that does not isolate them. Beliefs and attitudes need to be observed as the sum of a whole (Makadon, 2006). Medical professionals, like all human beings, "are natural categorisers who rely on cognitive schemata to simplify the vast array of social stimuli" (Matharu, Kravitz, Mcmahon, Wilson, & Fitzgerald, 2012, pp. 837). They are not immune to influences and ideas that are part of their socialization,

they are part of communities and families that shape their worldview. Even though medical training emphasizes impartiality, this impartiality may not be present in real life situations.

According to the South African Academy of Science, in many parts of the African continent same-sex relationships have widespread disapproval as they are deemed “unAfrican”. This creates environments that stigmatize same-sex relationships and exclude LGBTI people (Academy of Science of South Africa, 2015). Even though South Africa has introduced progressive legal reforms that protect the rights of LGBTI people, research shows that same-sex relationships are still stigmatized. The 2007 South African Social Attitudes survey showed that over 80% of South Africans felt that sexual relations between adults of the same-sex is “always wrong” (Roberts & Reddy, 2008).

The implications of socialization and societal norms on medical students cannot be discarded in their training. As studies have shown, beliefs formulated in society translate into lived experiences that shape our interactions (Bhana, 2012; Kneebone, 2002). Evidently, LGBTI people still experience discrimination despite the legal provisions that exist. Widespread ideas of homosexuality being a sin and unAfrican are still used to justify rejection of LGBTI people in South Africa (Nel & Judge, 2008). This makes a strong argument for rethinking the scope of teaching in the health sciences. Bennett & Reddy (2009) argue that reducing people to anatomical (ab)normalities and physiological (dys)functioning, renders their sexual identities, desires and pleasures invisible. A more critical and nuanced curriculum that takes into account the realities of how we are socialized can better prepare doctors in addressing their LGBTI patients’ needs.

This article presents findings from a cross sectional study which aims to explore the attitudes and beliefs of fifth-year University of Cape Town medical students on homosexuality. Data were collected through a 25 item homophobia scale and focus group discussion was used to analyse student’s feelings and attitudes towards LGBTI people.

3. Methodology

The study used a mixed-methods approach. The quantitative arm of the study used a survey with a cross-sectional sample of medical students to assess students’ attitudes and knowledge on LGBTI health issues. The qualitative part consisted of focus group discussions with a convenience sample of the same medical students. All students were in their 5th year of the MBChB degree (the equivalent to an MD degree) at the University of Cape Town’s Health Sciences Faculty, one of the oldest in the country, which offers a six-year medical degree programme for 1200 students. Ethical clearance for this study was granted by the University of Cape Town’s Ethics Committee in the Health Sciences faculty, HREC REF: 587/2015

3.1 Data collection

Data were collected between January, 2014 to June,2014 through the two methods described in the following paragraphs. The Gynaecology and Obstetrics department at the university held an LGBTI workshop as part of the students' course, in this workshop students were asked to complete the survey and indicate whether or not they would like their responses used for research. Students were then asked to volunteer themselves for focus group discussions which would be held at the university.

3.1.1 Survey

The survey consists of 29 items, and is an expanded version of the Homophobia Scale (Wright et al., 1999) with additional questions for the South African context (*see* Table 1). The Homophobia Scale is a self-report questionnaire designed to measure the cognitive (questions 2,8,11,18,21,22,23 and 25) affective (questions 1,9,10,13,14 and 24) and behavioural aspects (questions 3,5, 12,15, 16,17,19 and 20) of homophobia. The scale contains 25 items that are scored on a 5 point Likert scale; and includes items that assess social desirability. The scale has been used with undergraduate students' and a recent systematic review of instruments that measure homophobia found the Homophobia Scale to have acceptable psychometric properties (Costa et al. 2013).

In addition to the Homophobia Scale, there were 4 items added to the questionnaire, which assessed students' context specific knowledge about key LGBTI health concerns and students' feelings of preparedness and comfort in providing care to LGBTI patients (questions 26-29).

3.1.2 Focus group discussions

A total of three focus group discussions were held with 20 students, with 6 – 7 students per group, the groups were mostly mixed regarding gender and age. However, most of the participants were female. Each discussion was guided by a set of semi-structured questions framed around students' training experience, attitudes, beliefs and perceptions of LGBTI people. The discussions were facilitated by Ms. Sopitshi, a master's student in the faculty of health sciences with experience in qualitative research.

3.2 Data analysis

A basic analysis of the quantitative data was done using STATA. The main measures derived from this analysis were descriptive measures for the participants and the frequency of responses for the Likert scale.

Qualitative data collected through audio recordings during the focus group discussions were transcribed and analysed using thematic analysis. Steps followed during this process included those outline by Braun & Clarke (2006) which include a review of emerging themes, generating codes, mapping themes and defining and naming them.

Survey and discussion data were triangulated and analysed for similarities and contradictions according to four main categories: cognitive, affective and behavioural components that determine attitudes, as well as students' knowledge and preparedness to treat and care for LGBTI patients. Cognitive items assessed participant's thoughts on homosexuality, these could be concrete or popular ideas about homosexuality and the thoughts they may stimulate. Questions assessing affect explored the emotions evoked by homosexual persons or homosexuality. The behavioural component looked at actions enacted in response to homosexual persons or the knowledge of someone being homosexual. There is no universally accepted understanding of homophobia (Wright et al., 1999). Studies exploring homophobia have looked at different components of what could contribute to individual attitudes and beliefs towards LGBTI people, these have predominantly been cognitive, behavioural and affective components (*also see* O'Donohue and Caselles, 1993; Kan et al., 2009;Costa et al., 2013). As mentioned in the section above, which discusses the tools used in this study, the scale used here has been shown to have acceptable psychometric properties. These reviews of the current scale have guided this study as existing frameworks that universally describe homophobia were not available.

4. Results

A total of 157 students completed the survey. The gender composition of the study participants was predominantly male making up 68% of the group (n=106). Female students made up 31% (n=49) and 1 participant identified as transgender. The majority of students (n=149) self-identified as heterosexual, 4 students identified as bisexual, 2 identified as queer and 1 student identified as "other". The average age of the group was 23.15 years, ranging between 20 to 30 years.

4.1 Conceptualizing same-sex relationships

Cognitive	**Strongly agree**	**Agree**	**Don't know**	**Disagree**	**Strongly Disagree**
2. Gay people deserve what they get.	3,18	1,91	10,19	19,11	64,97
8. It does not matter to me whether my friends are gay or straight.	5,1	10,19	10,19	28,66	45,22
4. I think homosexual people should not work with children.	1,91	1,27	5,1	19,11	71,97
11. Homosexuality is immoral.	3,18	9,55	22,93	18,47	45,22
18. When I see a gay person I think "what a waste"	7,64	15,29	26,11	0,64	50,32
21. Homosexuality is acceptable to me.	33.12	24.2	22,29	9.55	10.19

22. Marriage between homosexual individuals is acceptable.	34,39	17.83	26,11	9.55	11.46
23. Organizations which promote gay rights are necessary.	45.22	32.48	10,19	5.73	5.73
25. Homosexual behaviour should not be against the law.	49.68	28,66	8,92	5.73	6.37

Table 1. Cognitive indicators on student attitudes on homosexuality

The outcomes of the survey showed that participants in general thought positively about LGBTI people (Table 1). 70% of participants disagreed with the statement "Homosexuality is immoral". Students also supported same-sex marriage and the promotion of LGBTI rights. However, a significant percent of students thought that homosexuality was not acceptable (~20%), that same-sex marriage was not acceptable (21%), and 12% thought that homosexuality should be outlawed.

The focus group discussions suggested possible reasons for the mixed attitudes of students. Students described how their changing environment when moving to attend university strongly transformed their attitudes towards LGBTI people. Exposure to LGBTI individuals at university was described as a "culture shock" by some participants. In contrasting the university environment and their communities, they spoke about growing up in environments that were vehemently opposed to homosexuality. Relocating to Cape Town and exposure to people with different sexual orientations prompted a shift in their attitudes as one participant explains:

Interviewee 5 [Male, Group 1] ... *so when I first came in first year I was like WHAT? Uhm, it's quite good experience changing mind-sets from where I was from. … where I am from, being gay or lesbian that is just always a negative thing, so when I came to Cape Town and saw how free everyone was its quite amazing cause it treats people differently people are free to be who they are and do not hide themselves. So being at home and being with uhmm... a Zulu family uhmm (giggles) it's like "hey don't even come back home" type of situation.*

Interviewee 2 (Female)*: And they can beat it out of you*.

Aspects that were significant in shaping ideas about homosexuality within students' families and communities were predominantly culture and religion. Students who were Zulu repeatedly noted that they were taught that their cultural identity rejected homosexuality. Consequently, some of their high school friends were only able to reveal their sexual orientation when they started attending university away from home. Accordingly, in describing the experiences of LGBTI people in South Africa, Polders & Wells (2005) and Nel & Judge (2008) note that there is widespread homophobia that is driven by the notion of homosexuality as being "unAfrican" these notions also emerged in this study.

The students who identified as religious belonged to the Christian faith, and often recognized that they were raised to believe homosexuality was a sin and immoral based on religious teachings. In the survey, 20% of

students thought that same-sex marriage was not acceptable and that their religious convictions added to their initial discomfort around LGBTI people at the university, and in Cape Town more generally. In the quote below one student recalls her experiences in university and how being exposed to diversity both sexual and cultural made her more comfortable around LGBT people.

Interviewee 2 [Male, Group 3]: *…So I come from that kind of background where being a homosexual is wrong. It is a sin. You are going to hell. We should love them because they are God's children but they will go to hell, that is the thinking that my parents have. That is the thinking that most of my family has. So that is the thinking that I have grown up with. Like if I read some of the crap I wrote when I was a teenager. I was a homophobe. But since getting to university and being exposed to a wide range of people, like a wider range than normal. I have become more comfortable. So I think exposure is another key thing that we need.*

4.2 Affective responses towards homosexuality: A crisis of faith

Generally, feelings expressed towards LGBTI people in the study were also positive. Two thirds of the participants indicated that they were not bothered by seeing same-sex partners together and only 9.56% felt nervous about LGBTI people making sexual advances towards them. However, 16% felt bothered by seeing two same-sex partners together and 16% would be upset if they learned a close friend was homosexual. It is also significant to note that although 55% (n=85) reported feeling comfortable having a gay roommate, 23% felt uncomfortable with this.

Affective	**Strongly agree**	**Agree**	**Don't know**	**Disagree**	**Strongly Disagree**
1. Gay people make me nervous.	1.27	1.27	8,28	34,39	54,14
9. It would not upset me if I learned that a close friend was homosexual.	42.04	26.75	15,29	8.92	6.37
10. It does not bother me to see two homosexual people together in public.	35.03	31.21	16,56	10.83	5.73
13. I feel that you cannot trust a person who is homosexual.	1,91	1,27	5,73	19,75	70,7
14. I fear that homosexual persons will make sexual advances towards me.	0.64	8.92	12,10	30.57	47.13
24. I would be comfortable having a gay roommate.	24.84	29.3	22,93	15.29	7.01

Table 2: Affective indicators on student attitudes on homosexuality

The discussions on homosexuality elicited a number of emotions in the group and also provided some context behind their feelings. For example, religion resurfaced as a source of anxieties for Christian students. Mitigating relationships with friends who were homosexual and their religious beliefs caused internal conflicts. One student describes how he struggled to reconcile his religious beliefs with his

friendship with a gay friend. He describes his friend as a "good person" and shunning him away because of his sexuality was unjustifiable and deterred him from going to church.

Interviewee 1[Male, Group 3]: *When I came to university I did not expect that I would turn out this way. I really did not expect, I thought I was going to come here, get my degree and leave and be a doctor. Very simple! Along there I think I was probably going to get married. Normal life in normal view. But after I had spinal TB and I had to be admitted here at GSH [Groote Schuur Hospital, the academic teaching hospital], and that is when I can genuinely say I got my first friend who was gay who I knew was gay and I didn't know this man at the time. When my friends weren't around I knew he would be there. That is when I began to question my own beliefs. People that are good…he was good; he didn't expect anything from coming to see me. And because of that I really began to question why I thought being gay was a choice. Because when I asked him did you choose? He wasn't angry. He explained that it is not a choice. He tried to be straight, it just didn't work out.*

Homosexuality sparked a lengthy discussion as some students felt strongly that homosexuality was a choice, therefore a sin. On the other hand, some students felt it was not a choice and they could not condemn others for their attraction to people of the same-sex.

4.3 Behavioural

Few students had behaved badly towards LGBTI people in the past. Only 17.44% of the respondents admitted to teasing or making jokes about gay people. This is a good indication because it means very few of these training doctors acted on their prejudices towards LGBTI people which may have positive implications for their treatment of LGBTI patients in the future.

Behavioural	**Strongly agree**	**Agree**	**Don't know**	**Disagree**	**Strongly Disagree**
3. If I discovered a friend was gay I would end the friendship.	1,27	2,55	5,73	15,92	73,98
5. I make derogatory remarks about gay people	1,27	5,73	10,19	33,12	49,04
12. I tease and make jokes about gay people	1,27	15,29	11,46	30,57	40,13
15. I have damaged property of gay persons, such as 'keying' their cars.	0,64	3,18	8,28	0,64	87,26
16. I would hit a homosexual for coming on to me.	0,64	1,27	3,18	17,83	76,43
17. I avoid gay individuals	2,55	9,55	4,46	25,48	57,32
19. When I meet someone I try to find out if he/ she is gay.	54,14	0,64	30,57	8,28	6,37

20. I have rocky relationships with people that I suspect are gay	14,01	7,64	5,1	23,57	49,4

Table 3:Behavioral indicators on student attitudes on homosexuality

4.4 Knowledge and preparedness: Questioning heteronormativity and learning spaces

Knowledge and preparedness	Strongly agree	Agree	Don't know	Disagree	Strongly Disagree
26. I can counsel homosexual people about safer sex options that are relevant to them (i.e. Dental dams).	7,01	7,64	21,66	40,13	22,93
27. Lesbian women have a lower risk of cervical cancer than heterosexual women.	20,38	31,85	35,03	10,83	1,27
28. HIV prevalence among transgender people is higher than among the general population.	7,01	18,47	46,5	23,57	4,46
29. The current MBChB curriculum has equipped me to provide care to homosexual patients.	14,65	31,21	23,57	26,11	3,82

Table 4: Outcomes on students self-rated knowledge and preparedness

The most concerning results of the study were those focusing the levels of preparedness in this cohort. Students indicated that they were not completely comfortable with treating LGBTI patients. When responding to the item "The current MBChB curriculum has equipped me to provide care to homosexual patients", just over half of the class (54.14%) were either uncertain (23.57%) or disagreed with the statement (29.93%). This result was not unexpected because students felt that their learning spaces did not allow them to enquire further about LGBTI health or adequately covered LGBTI health in their curriculum. When doing ward rounds students felt anxious about asking questions because they were trying to retain what they were taught and they did not want to be reprimanded for veering off topic. On the other hand, some were more concerned with their career goals and did not use the opportunity to learn more about homosexual patients or their experiences.

***Interviewer**: Do you guys raise it with your lecturers though, when you're doing your rounds in hospital*

***Interviewee 6 (Female)**: Look, in rounds you are trying to any attention to yourself like any communication between yourself and the consultants*

***Interviewee 4 (Female)**: Let me be honest with you, if you know what rounds… after pre-clinical years it's hard to bring it up in ward rounds, the lecturers know what they want to hear, if it's not related to the problem like someone is coming with a chest problem and you bring up sexual history…it's always been like, give*

me what I know and you're going to get your degree. It depends on which block you are, if you're in obs and gynae and you don't ask sexual history, then you're in trouble.

Interviewee 2 (Female): *You have to remember as medical students, especially here at UCT we are also like over achievers. The elective is like the opportunity to impress that professor that is going to be granting your register-ship in whatever field you want to do. So like I am very interested in forensic pathology and I would love to do my elective in forensics. Like other people want to do surgery, so they would go to that one professor that does that surgery because you know if he remembers you from your medicine days at UCT, should you apply in the next five to ten years for your register-ship…I want it like "I remember this kid, this kid was brilliant".*

4.4 Understanding LGBTI health and sexuality

Students' responses on knowledge on LGBTI health reflected this gap in their training. When responding to a knowledge question "Lesbian women have a lower risk of cervical cancer than heterosexual women", 54% gave the correct response and disagreed with the statement. The rest of the group either did not know or agreed with the statement (46%). Also, students were asked whether "transgender people had a higher prevalence of HIV than the general population" and 46% of the participants said they were unsure. This showed an indication of poor awareness of risk and knowledge. According to research, lesbian women are said to have increased risk due to factors such as non-use of contraception and poor screening (Tracy, Lydecker, & Ireland, 2010) and transgender people are a high-risk group for contracting HIV and sexually transmitted diseases in South Africa (Stevens, 2012).

These medical students did highlight the fact that transgender health was a significant gap in their learning. Furthermore, most felt uncomfortable asking about a patient's sexuality in case they might be offended. This led to students feeling anxiety when interacting with patients because the vast majority of students identified as heterosexual and their knowledge of same-sex sexual relations was limited. One student shared her experience of treating a transgender woman who had an infection from gender affirming surgery.

Interviewee 2 [Male, Group 3]: …*we haven't had enough exposure that we are aware of, of homosexual individuals. Like in schooling or with some people in life in general. Just never been around people that are a different orientation to you. And like so we never had to and nor have we seen our superiors interact with such patients as well.*

Interviewee 2 (Female)*: Mine was very strange because I was doing a call in the emergency department at Groote Schuur and I just happened to pick up her folder and when I went there, she was wearing clothes, covered with a blanket, long hair, I thought it was a very tall woman and she had a really broad stature so I started speaking to her you know the normal, "what's wrong?". She immediately told me "I'm here because my wound is infected from my surgery so I asked, "what surgery did you have?" The she just outright said, "I had a sex change operation". I think my mouth just went… my jaw just dropped [Laughter], but at that*

moment I tried to think, "what do I know about sex change"? I had never…other than your normal lesbian, gay, I had never! At least you know that's a male and that's a female they just have a different sexual orientation now I have someone who has changed their sex. [Sighs] Like, I mean I was shocked, like what are the follow up questions this, the nice thing was that she was very open about it and the weird thing is that the minute she said it, I started being mindful of whether I am saying he or she like I had to think about in my brain before I said

When discussing sexuality students often linked it to binary gender categories—male and female. This influenced their conception of sexual orientation extensively. Students drew on specific mannerisms and instances of gender performances to "make sense" of homosexuality. For example, effeminate behaviour exhibited by a person whose sex was male meant that they were often assumed to be gay. Similarly, women who exhibited behaviour that was "masculine" or "tomboy"-like were more likely to be identified as lesbian.

Also, students said that their *gaydar,* an innate tool they used to categorize a person's sexual orientation helped them identify patient's sexuality. The *gaydar* was also intrinsically tied to mannerisms ascribed to each respective sex. This showed further evidence of this binary perspective of gender. This "*gaydar*" became an accepted way of identifying individuals who are gay or lesbian. In all three focus groups students mentioned having a *gaydar* of some sort. When narrating their experiences with patients, these medical students would use their "*gaydar"* or normative assumptions to determine a patient's sexuality. Interestingly, none of them indicated ever asking a patient whether or not they were homosexual.

Interviewee 6 [Female, Group1]: *I remember once asking a patient… I already had a vibe just like the way he was speaking like he was most likely yea…*

Interviewee 5: *What do you mean a vibe?*

Interviewee 6 (Female): *I have a gaydar, I rarely, rarely miss homosexuals [laughter], and I know this type of team, I even know the type of heterosexuals who are like bi-curious at time [laughter].*

Interviewee 6 (Female): *I was talking to him and just the way like he was speaking and so forth I just thought, probably he was gay*

Interviewer*: How was he speaking?*

Interviewee 6 (Female)*: Like the words would end with like flare right…*

Knowledge regarding LGBTI people and their health was predominantly discussed within medical terms. Throughout the discussions there was cross-cutting inquisitiveness regarding transgender people, more specifically gender affirming surgery. Students showed interest in the procedure and the internal process that people undergo when having the surgery. There was little discussion on the complexities of the multiple identities under the LGBTI umbrella. Rather, a medical lens steered the direction of the discussion. For

example, one student compared transgender people with the evolution of frogs to make sense of non-heteromative gender identity.

Interviewee 1(Female)*: I learnt about that quite a long time ago [Transgender people] and to me it was kind of cool because it was just as Jurassic park came out they had these west African frogs they cloned the…they realised these west African frogs were female and there was no male in the area then one of them turns male and becomes a new Alpha male of the group so they were like transgender… naturally.*

[Laughter]

Interviewee 1(Female)*: It was so cool because the first thing I thought was oh that people can do this too.*

Interviewee 1(Female)*: Really, it's not exactly unnatural because they will be productive*

Interviewee 1(Female)*: They do that, the frogs can do that, and they can turn into male frogs*

Interviewee 2 (Female)*: When people say being intersexed or transgender is unnatural and it's against God's plan or the creator's plan you can use the frogs as an example.*

5. Discussion

Studies exploring homophobic attitudes in medical students in contexts similar to South Africa are scarce. Nonetheless, literature on medical students in other contexts provided useful insights for this study. Overall, when comparing our findings to these studies (Arnold et al. 2004; Kan et al. 2009), fifth year medical students at the University of Cape Town were not as homophobic as students surveyed for these studies above.

In Hong Kong, Kan et al., (2009) found that the homophobia scale as an instrument may not be translatable to their context because of language constraints. Similarly, in this study, there were non-English speaking students and this may the influence interpretation of the survey questions. In factoring this into this study's design words like "*istabane*" were added as familiar context specific words to aid better understanding of the questions. *Istabane* is a derogatory term equivalent to "faggot".

Secondly, these studies were not matched methodologically, Arnold et al. (2004) and Kan et al. (2009) were comparing medical students attitudes with students in other faculties. This was a gap in this study in terms of mapping medical students' attitudes in relation to the university community. However, the qualitative arm supplemented survey results by providing a deeper and contextual understanding of student attitudes.

Furthermore, there are inherent flaws in cross-sectional studies is that they provide a picture of current attitudes and not how these develop or change over time. Time and exposure were highlighted as a factor in changing attitudes in the focus groups. While these positive results found in this study may be a good indication at face value, respondents may have under-reported negative attitudes.

5.1 General student attitudes

Considering that homophobia and heterosexism remain widespread in participants' contexts, the findings point to generally favourable views of LGBT people. Factors that were noted as positively influencing their feelings and attitudes towards LGBTI people were exposure to sexual diversity or ender identities and changes in their context. Relocating to Cape Town consistently occurred as a significant factor in transforming their perceptions of LGBTI people. There is something to be explored within the sociocultural space in Cape Town and how it made individuals feel at ease with revealing their sexual orientation or gender identity compared to the students' hometowns. It is also very important to note that no student highlighted their curriculum as a factor in shaping their attitudes towards LGBTI people. In fact, students noted that this was scarcely discussed in their classes and that their learning environments did not allow them to engage fully with issues affecting the LGBTI community.

In her review of the health science curriculum at the University of Cape Town, Müller, (2013) noted that the curriculum did not sufficiently address LGBTI health, gender and sexuality. According to (White et al., 2015) the invisibility of LGBTI people in curriculum not only affects how medical students respond to LGBTI patients but it influences institutional culture. Students who are LGBTI often feel alienated when university policy and curriculum do not explicitly speak to their concerns and realities.

5.2 Understanding negative attitudes

Albeit most of the results were positive, there were about 10-20% of medical students with negative attitudes. For example, 21% thought that same-sex marriage was not acceptable. This introduces some heterogeneity in attitudes, students had varying levels of comfort on LGBTI issues. This prompts thinking about the implications of having this group of students who are homophobic. Homophobic attitudes not only create hostile environments for patients but for LGBTI students as well. LGBTI patients tend to mistrust health facilities when they encounter discrimination (Lane et al., 2008). This leads to avoidance and delaying seeking healthcare which exacerbates their health conditions (Müller, 2015). Furthermore, LGBTI students are also adversely affected by homophobic attitudes in their universities. Mansh et al., (2015) found that 29% of their 5,812 sample of undergraduate medical students concealed their sexual identities because of experiencing discrimination.

5.3 Lack of preparedness and knowledge

Students raised important concerns regarding their perceived capacity to care for and treat LGBTI patients due to gaps in their current curriculum. Moreover, feeling that their learning environments have not been conducive to asking questions and engaging with LGBTI related information. Their knowledge about LGBTI health, especially health of transgender people was limited. This raises serious questions about their ability

to care for LGBTI patients in future. Students in this study said that their curriculum did not influence their attitudes towards LGBTI people and this is a missed opportunity. Muller (2015) argues that integrated ways of teaching gender and sexuality can enable students to challenge their own prejudice and improve their ability to treat LGBTI patients. Some of these strategies can be role modelling, this includes affirming language and creating positive environments for students to learn. Furthermore, integrating gender and sexuality across different subject areas is another strategy, this reflects the diversity of issues LGBTI people encounter in their real lives as well (Muller, 2015).

5.4 Recommendations

Sexual identities are a substantial determinant of health and need to be considered as in all aspects of healthcare. A critical and nuanced framing of sexuality is needed in the health sciences, one that illustrates intersectionality and complexity of sex and gender. More importantly, one that allows health professionals to question their positionality, beliefs and attitudes. The experience of LGBTI people has shown that their needs struggle to be met by health professionals and interventions are needed to not only improve their health outcomes but to create professional and welcoming spaces for them. Student's personal experiences have greatly affected their perceptions and responses towards LGBTI people. In some cases, this has affected how these medical students interacted with patients. This means that there is an opportunity at the University of Cape Town to provide much needed interventions based on the experiences of this fifth year cohort.

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Part D: APPENDICES

Appendix 1: Focus group discussion guide

Hello,

This research study is intended for a Master's dissertation in the School of Public Health and Family Medicine at the University of Cape Town. My name is Athenkosi Sopitshi, my research interests are around sexual and reproductive health and their intersection with gender. This study is a subsidiary study of a broader study carried out by the Obstetrics and Gynaecology Department in the faculty of Health Sciences under the supervision of Dr. Alexandra Muller. This is a mixed methods study, it explores the knowledge, attitudes and beliefs of medical students about sexual and gender minorities. We conduct this study with 5th year MBChB students.

This study will be conducted in two phases, the first will be a survey issued at the LGBTI Workshop offered as part of your Obs & Gynae module. The second phase will be four focus group discussions, each lasting approximately 2 hours. The focus group discussions will take place within a booked classroom space within the university and will be recorded and transcribed.

Your responses will be confidential. However, I cannot guarantee confidentiality in the focus group discussions in the case where participants talk to people outside of the group about the content of the focus group discussions. If you choose not to participate, you can withdraw at any point in the process, and this will have no impact on the assessment of your performance in the Obs & Gynae module.

Focus group interview guide:

(a)What do students understand by LGBTI categories?

1. How did you come to learn about LGBTI people?

2. What were your first thoughts about LGBTI people?

(b) What have been their experiences with non-heterosexual or LGBTI individuals? How have these experiences influenced their attitude?

3. Have you met anyone who was LGBTI in your personal spaces and how did you know they were non-heterosexual?

4. Describe the interaction and any significant differences in your behaviour if these were present?

(c) What are some of the emotions they have experienced while dealing with non- heterosexual patients? What do they think informs these feelings?

5. Besides your behaviour, did your feelings change? (Explain your emotions during the interaction you described?

6. According to you, did you feel these were positive /negative? Explain why

(d) Do they feel non-heterosexual individuals need special treatment (in terms of Healthcare provision)? What is the reasoning behind these beliefs?

7. Have you encountered patients that are LGBTI? And how was this experience for you?

8. Do you feel non-heterosexual individuals need special treatment (in terms of Healthcare provision)? Why and why not?

Thank you for participating in this focus group discussion.

Appendix 2: Informed Consent Form – Attitudes and knowledge focus group discussions

Code: _____

Teaching and Learning for LGBTI Health: A Research Project

Consent Form

1. The researcher has explained to me that the purpose of this focus group discussion is to gather information about the attitudes and knowledge of senior medical students with regard to the health of lesbian, gay, bisexual and transgender (LGBTI) people.

2. I understand that the questions I will be asked will refer to my own experience relating to LGBTI people. I understand that I do not have to speak about these experiences unless I choose to do so.

3. I understand the overall aims and possible benefits of the research.

4. I understand that everything that is said in the focus group discussion is confidential and that I may not share it with people outside the group.

5. The researcher has explained that the information I give will be confidential and that my anonymity will be preserved. The researcher has also explained that confidentiality might not be preserved if other participants break the confidentiality of the group outside of the research setting.

6. I understand that I may refuse to participate in the group discussion, and that I can leave the group discussion at any point. I further understand that I may refuse to answer questions without having to give any reasons.

7. I understand how the information I give in this group discussion will be used and how I will be able to learn about the findings of the research project, i.e. that I will also receive a copy of the final research report at my request.

8. The researcher has explained the purpose of recording this group discussion, i.e. to ensure accuracy, and also what will happen to the recording. I agree to the recording under these conditions.

9. I have received an Information Form with contact details of the project coordinator in case I would like further information about the project.

I hereby consent to participate in this research.

_____ _____

Signature: Research Participant Signature: Researcher

Date: _____

Appendix 3: MBChB student survey for LGBTI health workshop:

Code _____

This questionnaire is designed as an evaluation of your ideas and knowledge on LGBTI people and health concerns. Please think carefully about the following questions and answer them truthfully. There are no right or wrong answers. The questionnaire is anonymous and your answers will not affect your marks in this course.
Thank you for participating!

Basic information about yourself

How old are you? _____ Years

How do you identify in your gender identity?

Female	Male	Transgender	Other

How do you identify in your sexual orientation?

Straight	Gay	Lesbian	Bisexual	Queer	Other

Do you agree with the following statements?

1. Gay people make me nervous.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

2. Gay people deserve what they get.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

3. If I discovered a friend was gay I would end the friendship.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

4. I think homosexual people should not work with children.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

5. I make derogatory remarks about gay people.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

6. I enjoy the company of gay people.

Strongly	Disagree	Uncertain	Agree	Strongly agree

disagree				

7. I make derogatory remarks like ‘faggot’ or ‘*istabane*’ to people who I suspect are gay.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

8. It does not matter to me whether my friends are gay or straight.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

9. It would not upset me if I learned that a close friend was homosexual.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

10. It does not bother me to see two homosexual people together in public.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

11. Homosexuality is immoral.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

12. I tease and make jokes about gay people.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

13. I feel that you cannot trust a person who is homosexual.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

14. I fear that homosexual persons will make sexual advances towards me.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

15. I have damaged property of gay persons, such as ‘keying’ their cars.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

16. I would hit a homosexual for coming on to me.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

17. I avoid gay individuals.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

18. When I see a gay person I think “What a waste”

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

19. When I meet someone I try to find out if he/ she is gay.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

20. I have rocky relationships with people that I suspect are gay.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

21. Homosexuality is acceptable to me.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

22. Marriage between homosexual individuals is acceptable.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

23. Organisations which promote gay rights are necessary.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

24. I would comfortable having a gay roommate.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

25. Homosexual behavior should not be against the law.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

26. I can counsel homosexual people about safer sex options that are relevant to them (i.e. dental dams).

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

27. Lesbian women have a lower risk of cervical cancer than heterosexual women.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

28. HIV prevalence among transgender people is higher than among the general population.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

29. The current MBChB curriculum has equipped me to provide care to homosexual patients.

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

I agree that the responses of this survey may be used for research purposes. I have read and understood the information sheet, and have no further questions.

_____ _____

Date Signature

Appendix 4: Journal Instructions

Journal of Homosexuality

Manuscript Submission. Address manuscripts to the Editor: Dr. John P. Elia, jpelia@sfsu.edu

Prospective authors are to send the following items as e-mail attachments:

(1) a cover letter indicating that the manuscript is not under consideration for publication elsewhere;

(2) a blinded (i.e., with no references or indications as to the author's name) electronic copy of the manuscript;

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